



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,985	09/26/2001	Andrew Fertlitsch	SLA1004	2966

52894 7590 01/25/2007
KRIEGER INTELLECTUAL PROPERTY, INC.
P.O. BOX 1073
CAMAS, WA 98607

EXAMINER

DULANEY, BENJAMIN O

ART UNIT	PAPER NUMBER
----------	--------------

2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/964,985

Applicant(s)

FERTLITSCH ET AL.

Examiner

Benjamin O. Dulaney

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1) Applicant's arguments filed 11/18/06 have been fully considered but they are not persuasive.

In response to applicant's argument that the method of Onuma "is not related to printing specifically", Examiner disagrees. Onuma clearly states that its invention can be applied to a print driver (Column 9, lines 8-9).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Lobiondo discloses a "method for dividing a print job", hence it is taught in the combination of Lobiondo and Onuma.

In response to applicant's argument that the combination of Lobiondo and Onuma does not teach parallel playback of spool data, nor playback to multiple print drivers, Examiner disagrees and would draw attention to Examiner's previous responses.

(Previous explanation) In response to applicant's arguments, examiner reads driver-dependent data as defined by the claim, "print task with said cluster printing

Art Unit: 2625

selection". Lobiondo does combine a print job with the data needed to route said print job. Also, Examiner reads parallel playback as "de-spooling" to multiple different locations (paragraph 16, specification of this application). It is the Examiner's position that gathering data, sending the data to a print driver, then sending the modified data to a printer is well known in the art. Therefore, when Lobiondo sends "driver-dependent data" from central processing to the individual printers, the data could very easily be sent through print drivers.

(Previous explanation) For further explanation, Onuma is used in the rejection solely to teach the workings of a print driver with parallel processing capabilities (capabilities shown at Column 5, lines 14-47; driver shown at Column 9, lines 8 and 9). Though it would be reasonable to assume Lobiondo's processes include print drivers, it is not specifically taught. However when the overall function of Lobiondo is viewed with the specifics of Onuma's print driver(s) it is the examiner's continued opinion that all elements of claim 1 are anticipated.

(Previous explanation) In response to applicant's argument that Lobiondo and Onuma are not combinable, examiner disagrees. Lobiondo teaches a broader system of printing than Onuma and Onuma could easily be integrated into that system. Applicant states on page 10 of arguments (submitted 6/5/06) that "Onuma has no relation to multiple printer processes", examiner disagrees. Onuma clearly teaches multiple printer processes in Column 5, lines 14-47, that can be processed in parallel no less.

(Additional explanation) Applicant's arguments did not address the above explanation and it is requested that the applicant do so in the next response. For further explanation, the "related function" which the applicant claims the references to be lacking on page 11, is the process of printing documents. Both Onuma and Lobiondo detail how print jobs are processed, hence they are related.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The function of print drivers in typical printing processes was well known in the art at the time the invention was made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 1-16, 18, 19, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,287,194 by Lobiondo, and further in view of U.S. Patent 6,609,210 by Onuma.

3) Regarding claim 1, Lobiondo teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component; receiving a cluster printing selection at said print system component; combining said print task with said cluster printing selection thereby creating driver-dependent data; creating spool data from said driver-dependent data (Column 3, lines 51-63); and dividing and distributing said print task among a plurality of printing devices with said print system component (Column 4, lines 16-29).

Lobiondo does not teach transmitting said driver-dependent data to a printer driver, and dividing and distributing comprising parallel playback of spool data to multiple printer drivers.

Onuma teaches transmitting said driver-dependent data to a printer driver, and dividing and distributing comprising parallel playback of spool data to multiple printer drivers (Column 1, lines 17-36; Column 5, lines 14-47).

Lobiondo and Onuma are combinable because they are both from the printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Onuma to add sending data through print drivers. The motivation for doing so would have been that "data transfer to a printer is

Art Unit: 2625

one of the roles of a print driver" (Column 1, lines 17-18). Therefore it would have been obvious to combine Lobiondo with Onuma to obtain the invention as specified in claim 1.

4) Regarding claim 2, Lobiondo teaches the method of claim 1 wherein said dividing and said distributing comprise job splitting (column 4, lines 54-57; column 4, lines 16-19).

5) Regarding claim 3, Lobiondo teaches the method of claim 1 wherein said dividing and said distributing comprise copy splitting (column 5, lines 45-62).

6) Regarding claim 4, Lobiondo teaches the method of claim 1 wherein said load-balancing comprising obtaining printer capability data from said plurality of printing devices (column 3, lines 41-50).

7) Regarding claim 5, Lobiondo teaches the method of claim 4 wherein said printer capability data comprises a rate at which at least one of said plurality of printing devices prints pages (column 3, line 68 - column 4, line 3).

8) Regarding claim 6, Lobiondo teaches the method of claim 1 wherein said dividing, said distributing and said providing load-balancing comprise dividing said print task among said plurality of printing devices according to the speed of each printing device (column 4, lines 52-54).

9) Regarding claim 7, Lobiondo teaches the method of claim 1 further comprising querying at least one printing device to determine at least one of its capabilities (column 4, lines 16-64).

Art Unit: 2625

10) Regarding claim 8, Lobiondo teaches the method of claim 1 further comprising querying at least one printing device to determine its availability (column 4, lines 16-64).

11) Regarding claim 9, Lobiondo teaches the method of claim 1 wherein said dividing, said distributing and said load-balancing comprise dividing said print task, when said print task comprises multiple copies of a print job, into sets of copies of said print job, each of said sets comprising a number of copies substantially proportional to the number of pages per minute (PPM) each printer can print (column 4, lines 58-64; column 5, lines 45-62).

12) Regarding claim 10, Lobiondo teaches the method of claim 1 wherein said dividing, said distributing and said load-balancing comprise dividing said print task, when said print task comprises multiple and distinct print jobs, into sets of distinct print jobs, each of said sets comprising a number of pages substantially proportional to the number of pages per minute (PPM) each printer can print (column 4, lines 58-64; column 5, lines 9-12).

13) Regarding claim 11, Lobiondo teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component; receiving a cluster printing selection at said print system component; combining said print task with said cluster printing selection thereby creating driver-dependent data; creating spool data from said driver-dependent data (Column 3, lines 51-63); determining the output capacity of multiple printing devices; and de-spooling said spool data in accordance with said cluster printing selection wherein said de-spooling comprises distribution of said print task to said multiple

Art Unit: 2625

printing devices in substantial proportion to each of said multiple printing device's output capacity (Column 4, line 35 – Column 5, line 14).

Lobiondo does not teach transmitting said driver-dependent data to a printer driver.

Onuma teaches transmitting said driver-dependent data to a printer driver (Column 1, lines 17-36; Column 5, lines 14-47).

Lobiondo and Onuma are combinable because they are both from the printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Onuma to add sending data through print drivers. The motivation for doing so would have been that "data transfer to a printer is one of the roles of a print driver" (Column 1, lines 17-18). Therefore it would have been obvious to combine Lobiondo with Onuma to obtain the invention as specified in claim 11.

14) Regarding claim 12, Lobiondo teaches the method of claim 11 wherein said determining comprises querying a local printer through a system bus (column 4, lines 16-64).

15) Regarding claim 13, Lobiondo teaches the method of claim 11 wherein said determining comprises querying a network printer using a network communications protocol (column 4, lines 16-64).

Art Unit: 2625

16) Regarding claim 14, Onuma teaches the method of claim 11 wherein said determining comprises querying a printer driver (Column 1, lines 17-36; Column 5, lines 14-47).

17) Regarding claim 15, Lobiondo teaches the method of claim 11 wherein said determining comprises accessing a printer attribute registry (column 3, line 68 – column 4, line 3).

18) Regarding claim 16, Lobiondo teaches a print system component comprising a print processor (column 3, lines 41-50).

19) Regarding claim 18, Lobiondo teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component; receiving a cluster printing selection at said print system component; combining said print task with said cluster printing selection thereby creating driver-dependent data; creating spool data from said driver-dependent data (Column 3, lines 51-63); modifying said spool data according to said printing selection (Column 5, lines 45-62; Column 6, lines 8-21); determining the output capacity of multiple printing devices (Column 3, line 64 – Column 4, line 15); and de-spooling said spool data in accordance with said cluster printing selection wherein said de-spooling comprises distribution of said print task to said multiple printing devices in substantial proportion to each of said multiple printing device's output capacity (Column 4, line 35 – Column 5, line 14).

Lobiondo does not teach transmitting said driver-dependent data to a printer driver.

Onuma teaches transmitting said driver-dependent data to a printer driver (Column 1, lines 17-36; Column 5, lines 14-47).

Lobiondo and Onuma are combinable because they are both from the printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Onuma to add sending data through print drivers. The motivation for doing so would have been that "data transfer to a printer is one of the roles of a print driver" (Column 1, lines 17-18). Therefore it would have been obvious to combine Lobiondo with Onuma to obtain the invention as specified in claim 18.

Examiner does not see anything in the specification that would narrow the definition of the limitation of "modifying said spool data according to said printing selection" enough to be novel in view of Lobiondo. Lobiondo changes the data according to user choices as well as changing data automatically when a specific printer might not be available.

20) Regarding claim 19, Lobiondo teaches the method of claim 18 wherein said throughput comprises a printer's speed in PPM (column 4, lines 58-64).

21) Regarding claim 23, Lobiondo teaches a printing system for distributing a print task among a plurality of printing devices, said system comprising: a print task receiver for receiving a print task; a cluster selection receiver for receiving a cluster printing selection; a combiner for combining said print task with said cluster printing selection thereby creating driver-dependent data; a driver for creating spool data from said driver-

Art Unit: 2625

dependent data (Column 3, lines 51-63); a modifier for modifying said spool data according to said cluster printing selection (Column 5, lines 45-62; Column 6, lines 8-21); a capacity determiner for determining the output capacity of multiple printing devices (Column 3, line 64 – Column 4, line 15); and a de-spooler for de-spooling said spool data in accordance with said cluster printing selection wherein said de-spooling comprises distribution of said print task to said multiple printing devices in substantial proportion to each of said multiple printing device's output capacity (Column 4, line 35 – Column 5, line 14).

Lobiondo does not teach a transmitter for transmitting said driver-dependent data to a printer driver.

Onuma teaches a transmitter for transmitting said driver-dependent data to a printer driver (Column 1, lines 17-36; Column 5, lines 14-47).

Lobiondo and Onuma are combinable because they are both from the printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Onuma to add sending data through print drivers. The motivation for doing so would have been that "data transfer to a printer is one of the roles of a print driver" (Column 1, lines 17-18). Therefore it would have been obvious to combine Lobiondo with Onuma to obtain the invention as specified in claim 23.

22) Regarding claim 24, Lobiondo teaches a computer-readable medium comprising instructions for distributing a print task among a plurality of printing devices, said

Art Unit: 2625

instructions comprising the acts of: receiving a print task at a print system component; receiving a cluster printing selection at said print system component; combining said print task with said cluster printing selection thereby creating driver-dependent data; creating spool data from said driver-dependent data (Column 3, lines 51-63); modifying said spool data according to said printing selection (Column 5, lines 45-62; Column 6, lines 8-21); determining the output capacity of multiple printing devices (Column 3, line 64 – Column 4, line 15); and de-spooling said spool data in accordance with said cluster printing selection wherein said de-spooling comprises distribution of said print task to said multiple printing devices in substantial proportion to each of said multiple printing device's output capacity (Column 4, line 35 – Column 5, line 14).

Lobiondo does not teach transmitting said driver-dependent data to a printer driver.

Onuma teaches transmitting said driver-dependent data to a printer driver (Column 1, lines 17-36; Column 5, lines 14-47).

Lobiondo and Onuma are combinable because they are both from the printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Onuma to add sending data through print drivers. The motivation for doing so would have been that "data transfer to a printer is one of the roles of a print driver" (Column 1, lines 17-18). Therefore it would have been obvious to combine Lobiondo with Onuma to obtain the invention as specified in claim 24.

23) Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (as modified by Onuma) as applied to claim 11 above, and further in view of U.S. Patent 6,049,394 by Fukushima.

Lobiondo does not teach the method of claim 11 wherein said determining comprises estimating the capability of some of said multiple printing devices.

Fukushima (as modified by Onuma) does teach estimating the capability of some of said plurality of printing devices (column 17, lines 1-9).

Fukushima (as modified by Onuma) and Lobiondo are combinable because they are from the printer networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo (as modified by Onuma) by Fukushima to estimate capabilities. The motivation for doing so would have been to determine "that the printing speed can be followed"(column 17, line 8). Therefore it would have been obvious to combine Lobiondo (as modified by Onuma) to obtain the invention as specified in claim 17.

"**SOME** of said multiple printing devices" can be interpreted as one printing device.

24) Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (as modified by Onuma) as applied to claim 18 above, and further in view of U.S. Patent 6,665,082 by Takeoka et al.

Lobiondo (as modified by Onuma) does not teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity.

Takeoka does teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity (Column 3, lines 11-25; Column 9, line 66 – Column 10, line 13).

Takeoka and Lobiondo (as modified by Onuma) are combinable because they are from the same art of printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo (as modified by Onuma) by Takeoka to determine output capacity comprising determination of printing storage capacity. The motivation for doing so would have been to “determine the amount of image data included in a packet” (Column 3, line 18). Therefore it would have been obvious to combine Lobiondo (as modified by Onuma) to obtain the invention as specified in claim 20.

25) Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (as modified by Onuma) as applied to claim 18 above, and further in view of U.S. Patent 6,891,632 by Schwartz.

26) Regarding claim 21, Lobiondo (as modified by Onuma) does not teach the method of claim 18 wherein a determination of said output capacity comprises an analysis of a printing device's rasterization pipeline.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an analysis of a printing device's rasterization pipeline (Column 3, lines 3-22; Column 10, lines 1-10).

Schwartz and Lobiondo (as modified by Onuma) are combinable because they are from the same art of printing.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo (as modified by Onuma) by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Lobiondo (as modified by Onuma) to obtain the invention as specified in claim 21.

27) Regarding claim 22, Lobiondo (as modified by Onuma) does not teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task (Column 3, lines 3-22; Column 10, lines 1-10; Column 3, lines 29-30).

Schwartz and Lobiondo (as modified by Onuma) are combinable because they are from the same art of printing.

Art Unit: 2625

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo (as modified by Onuma) by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Lobiondo (as modified by Onuma) to obtain the invention as specified in claim 22.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin O. Dulaney whose telephone number is (571) 272-2874. The examiner can normally be reached on Monday - Friday (9am - 6pm).

Art Unit: 2625

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin

Dubany

Twyler Lamb

TWYLER LAMB
SUPERVISORY PATENT EXAMINER